

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



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Applicant's or agent's file reference 04FREF040PC	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/KR2004/003075	International filing date(day/month/year) 26 NOVEMBER 2004 (26.11.2004)	Priority date (day/month/year) 28 NOVEMBER 2003 (28.11.2003)	
International Patent Classification (IPC) or national classification and IPC IPC7 F25D 25/00			
Applicant LG ELECTRONICS INC. et al			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 30 MAY 2005 (30.05.2005)	Date of completion of this report 20 DECEMBER 2005 (20.12.2005)
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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. 1 Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☒ This report is based on translations from the original language into the following language English, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☒ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished

- ☐ the description:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____

- ☐ the claims:
- pages _____ as originally filed/furnished
- pages* _____ as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____

- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____

- ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1 - 40	YES
	Claims		NO
Inventive step (IS)	Claims	2, 4-20, 22-32, 35, 36, 39, 40	YES
	Claims	1, 3, 21, 33, 34, 37, 38	NO
Industrial applicability (IA)	Claims	1 - 40	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: KR 2000-0014608 A

D2: KR 2000-0002573 U

D3: KR 2000-0007929 A

D4: US 4,739,629 A

D5: US 6,079,221 A

Claims 1-20 relate to a refrigerator wherein a water tank and a heater are installed between a doorliner and a dispenser housing; claims 21-32 relate to a refrigerator wherein a water tank and a filter are installed between a doorliner and a dispenser housing; claims 33-36 relate to a refrigerator wherein a tube-type pipe is installed between a doorliner and a dispenser housing; claim 37 relates to a refrigerator wherein a water tank, a temperature sensor and a heater are installed between a doorliner and a dispenser housing; claim 38 relates to a method for manufacturing a refrigerator by installing a water tank and inserting foam between a doorliner and an outer portion of a refrigerator door; claim 39 relates to a side-by-side refrigerator wherein a water tank is installed on an insulation layer inside a barrier and a dispenser is installed inside a cooling chamber; claim 40 relates to a refrigerator wherein a water tank and a dispenser are installed inside the cooling chamber.

D1 relates to a refrigerator comprising a dispenser, a water purifying filter, a heater, a water tank, and a temperature sensor. D2 relates to a refrigerator wherein a water tank is installed between an outer portion of a refrigerator door and a doorliner. D3 relates to a refrigerator having a cooling pipe, which is bent several times, at an inner portion of a refrigerator door. D4 and D5 relate to a refrigerator having a dispenser, characterized in that a water tank is installed at an inner portion of a cooling chamber.

(Continued on Supplemental Sheet.)

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The description of the present application shows an inconsistency in the reference sign of the dispenser. That is to say, the reference sign of the dispenser is (7) in Fig. 1, but that of the dispenser is (9) in the description of Fig. 1 (see page 1).

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Box V.

1. Novelty

None of D1 to D5 disclose the installation of a water tank or tube-type pipe, a heater and a filter inside a refrigerator door, as set forth in claims 1-38 of the present application, and the installation of a water tank and a dispenser inside a cooling chamber, as set forth in claims 39 and 40 of the present application. Therefore, claims 1-40 are considered to be novel under PCT Article 33(2).

2. Inventive Step

Claim 1 relates to a refrigerator wherein a water tank and a heater are installed between a doorliner and a dispenser housing; claim 3 adds a temperature sensor to claim 1; claim 21 relates to a refrigerator wherein a water tank and a filter is installed between a doorliner and a dispenser housing; claim 37 relates to a refrigerator wherein a water tank, a temperature sensor and a heater are installed between a doorliner and a dispenser housing. Claims 1, 3, 21 and 37 are considered to lack an inventive step in view of the combination of D1 and D2, and said combination is obvious to a person skilled in the art.

Claims 33 and 34 relate to a refrigerator having a dispenser in which a tube-type pipe is installed between a doorliner and a dispenser housing. Claims 33 and 34 are considered to lack an inventive step in view of the combination of D1 and D3, and said combination is considered to be obvious to a person skilled in the art.

Claim 38 relates to a method for manufacturing a refrigerator by installing a water tank between a doorliner and an outdoor and inserting foam between them, and having a dispenser. It would be obvious to a person skilled in the art to derive the method of claim 38 from the teaching of D2.

Therefore, claims 1, 3, 21, 33, 34, 37 and 38 are considered to lack an involve an inventive step under PCT Article 33(3).

3. Industrial Applicability

Claims 1-40 relate to a refrigerator having a dispenser. Therefore, said claims are considered to be industrially applicable under PCT Article 33(4).